

REMARKS

Claims 1-19 are pending in this application. Claims 1-19 stand rejected. Claims 20 and 21 have been subjected to a restriction requirement and have been canceled. Reconsideration and further examination of the subject patent application in light of the present Amendment and Remarks is respectfully requested.

Elections/Restrictions

Claims 1-21 have been subjected to a restriction requirement including a Group I, including claims 1-19, and a Group 2, including claims 20 and 21. Applicant confirms election of Group 1.

Claims Objections

Claim 17 has been objected to for a spelling error. In response, the spelling error has been corrected.

Rejections Under 35 U.S.C. §112

Claims 14-16 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, the Office Action asserts that the preamble doesn't match the base claim. In response, the dependency has been corrected.

Rejections Under 35 U.S.C. §102

Claims 1, 2, 4-8 and 12 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. Publ. No. US 2006/0108223 to Derr. Applicant respectfully traverses these rejections.

In response, independent claim 1 has been clarified by being further directed to “a flexible metallic current collector.” Metal current collectors, such as of a noble metal, are discussed in paragraph [0037] of the specification.

Independent claim 1 has also been clarified by being further directed to “a compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures.” The use of a thermoplastic is discussed in paragraph [0035] of the specification. The over-molding of the thermoplastic elastomeric material directly onto the current collector is discussed in paragraph [0038] of the specification.

Claims 1, 2, 4-8 and 12 are now clearly differentiated over Derr. For example, rather than having a metal current collector, Derr uses a glass electrode 2 (Derr, par. [0042]). Moreover, the claims are explicitly directed to “a compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures.” Derr fails to provide any structure that is any way comparable to this feature.

Since Derr does not have a metallic current collector or “a compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures” Derr does not do the same or any similar thing as that of the claimed invention. Since Derr does not do the same or any similar thing as that of the claimed invention, the rejections are now improper and should be withdrawn.

Rejections Under 35 U.S.C. §103

Claims 1-8, 10-15, 17, and 19 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 3,708,412 to Lofgren in view of U.S. Pat. No. 5,667,406 to Tabata et al. Applicant respectfully traverses these rejections.

However, as noted above, independent claim 1 has also been clarified by being further directed to “a compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures.” Lofgren and Tabata et al. fail to provide any teaching in this regard. Lotgren merely show electrical leads 17, 18 extending directly through the body 10. Similarly, Tabata et al. is directed to the use of elastic synthetic rubber (Tabata et al., col. 4, lines 51-57).

Moreover, the claims are directed “thermoplastic material over-molded directly onto the flexible metal current conductor.” In contrast, Tabata et al. uses a jig 31 to slip the waterproof seal A over the wire 11.

In addition, the Tabata et al. wire is encased in a sheath 11a. As such, Tabata et al. does not have a compliant seal “over-molded directly onto the flexible metal current conductor.”

The claims are explicitly directed to “the seal being in contact with the collector substantially throughout its length along the current collector.” In contrast, Tabata et al. explicitly provides a gap 38 between the wire 11 and waterproof seal.

Moreover, those of skill in the art would recognize that these changes are significant structural differences that are directly related to the functioning of the claimed invention. For example, the over-molding of the thermoplastic to the metallic conductor introduces significant mechanical strength and impermeability to the combination of the compliant seal and metal

current collector. In contrast, Tabata et al. requires the use of a metal terminal 41 that clamps the Tabata et al. wire 11b to the waterproof seal A.

As such, Lofgren and Tabata et al. and the combination of Lofgren and Tabata et al. fail to teach or suggest each and every claim limitation. Since the combination fails to teach or suggest each and every claim limitation, the rejections are improper and should be withdrawn.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 3,708,412 to Lofgren in view of U.S. Pat. No. 5,667,406 to Tabata et al. and U.S. Pat. No. 5,224,875 to Watanabe et al. Applicant respectfully traverses these rejections.

It may be noted first in this regard that claim 9 is dependent upon claim 1 and includes all of the limitations of claim 1. As such, claim 9 is also directed to “a compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures.”

It may be noted next that Watanabe et al. also requires a mechanical connection between the wire C and water sealing plug B. The Watanabe water sealing plug is made of soft rubber.

As such, Lofgren, Tabata et al. and Watanabe et al. and the combination of Lofgren, Tabata et al. and Watanabe et al. fail to teach or suggest each and every claim limitation. Since the combination fails to teach or suggest each and every claim limitation, the rejections are improper and should be withdrawn.

Claims 16 and 18 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Pat. No. 3,708,412 to Lofgren in view of U.S. Pat. No. 5,667,406 to Tabata et al. and U.S. Pat. No. 6,638,107 to Silferberg. Applicant respectfully traverses these rejections.

It may be noted first in this regard that claims 16 and 18 are dependent upon claim 1 and includes all of the limitations of claim 1. As such, claims 16 and 18 are also directed to “a

compliant seal of a thermoplastic material over-molded directly onto the flexible, metal current collector, the compliant seal inserted into the one of the connection apertures.”

It may be noted next that Silferberg (as with Lofgren and Tabata et al.) fails to provide any teaching or suggest of this feature. Silferberg, in fact, is merely directed to cable coupling devices.

As such, Lofgren, Tabata et al. and Silferberg and the combination of Lofgren, Tabata et al. and Silferberg fail to teach or suggest each and every claim limitation. Since the combination fails to teach or suggest each and every claim limitation, the rejections are improper and should be withdrawn.

Closing Remarks

For the foregoing reasons, applicant submits that the subject application is in condition for allowance and earnestly solicits an early Notice of Allowance. Should the Primary Examiner be of the opinion that a telephone conference would expedite prosecution of the subject application, the Primary Examiner is respectfully requested to call the undersigned at the below-listed number.

The Commissioner is hereby authorized to charge any additional fee which may be required for this application under 37 C.F.R. §§ 1.16-1.18, including but not limited to the issue fee, or credit any overpayment, to Deposit Account No. 23-0920. Should no proper amount be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal, or even entirely missing, the Commissioner is authorized to charge the

unpaid amount to Deposit Account No. 23-0920. (*If filed by paper, a duplicate copy of this sheet(s) is enclosed.*)

Respectfully submitted,

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